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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/025,082	12/19/2001	Mark N. Robins	10011719-1	4916

22879 7590 12/29/2005

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EXAMINER

BRINICH, STEPHEN M

ART UNIT	PAPER NUMBER
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2624

DATE MAILED: 12/29/2005

Please find below and/or attached an Office communication concerning this application or proceeding.



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APPLICATION NO./ CONTROL NO.	FILING DATE	FIRST NAMED INVENTOR / PATENT IN REEXAMINATION	ATTORNEY DOCKET NO.
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10/025, 082

EXAMINER
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ART UNIT	PAPER
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20051221

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Commissioner for Patents

## Office Action Summary

**Application No.**

10/025,082

**Applicant(s)**

ROBINS ET AL.

**Examiner**

Stephen M. Brinich

**Art Unit**

2624

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☐ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 16-20 is/are allowed.
- 6) ☒ Claim(s) 1-5, 10 and 11 is/are rejected.
- 7) ☒ Claim(s) 6-9 and 12-15 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date 12/19/01.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

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**DETAILED ACTION**

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 & 10-11 are rejected under 35 U.S.C. 102(b) as being anticipated by MacLean (US 6144408).

Re claims 1, 3-5, & 10-11, MacLean discloses (Abstract; Figures 1-3; column 1, lines 36-65; column 3, lines 18-37) a digital camera containing an electronic image sensor in which a series of dark frames (2a, 2b, 2c) and a series of image frames (1a, 1b, 1c) are captured and stored in memory elements. The dark frame value is regularly updated (column 1, lines 44-46), and the most recent value (corresponding to the dark frame at the current temperature) is subtracted from the current image frame to produce a corrected image frame.

Further re claim 1, a processor (Figure 4, items 28 & 30; column 3, lines 57-61) communicates with the image sensor in order to control this operation.

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Re claim 2, MacLean describes the memory (2a, 2b, 2c) used to store a set of dark frames, and describes the dark frame as being regularly updated (column 1, lines 44-46). The regular updating of the contents of a limited memory inherently requires the loss of old memory contents once the total information received to date exceeds the capacity of the memory.

***Allowable Subject Matter***

3. Claims 16-20 are allowed.
4. Claims 6-9 & 12-15 objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. The following is a statement of reasons for the indication of allowable subject matter:

Re claims 6-9 & 13-16 (and dependent claims 17-20), the art of record does not teach or suggest the recited preview mode checking arrangement in conjunction with the recited arrangement for ongoing capture and storage of dark frames for use in image correction.

Re claim 12, the art of record does not teach or suggest the recited sliding averaging of dark frames in conjunction with the recited arrangement for ongoing capture and storage of dark frames for use in image correction.

**Conclusion**

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Tani, Spivey et al, and Hull et al disclose further examples of electronic image sensors in which dark frames are read and used to correct image frames.

7. Any inquiry concerning the contents of this communication or earlier communications from the examiner should be directed to Stephen M. Brinich at 571-272-7430.

Any inquiry relating to the status of this application or proceeding or any inquiry of a general nature concerning application processing should be directed to the Tech Center 2600 Customer Service center at 571-272-2600 or to the USPTO Contact Center at 800-786-9199 or 703-308-4357.


The examiner can normally be reached on weekdays 7:00-4:30, alternate Fridays off.

If attempts to contact the examiner and the Customer Service Center are unsuccessful, supervisor David Moore can be contacted at 571-272-7437.

Faxes pertaining to this application should be directed to the Tech Center 2600 official fax number, which is 571-273-8300 (as of July 15, 2005).

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Hand-carried correspondence may be delivered to the Customer Service Window, located at the Randolph Building, 401 Dulany Street, Alexandria, VA 22314.

  
Stephen M Brinich  
Examiner  
Art Unit 2624

smb  
December 21, 2005